

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT (PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference 000595-0052	FOR FURTHER ACTION		see Form PCT/ISA/220 as well as, where applicable, item 5 below.
International application No. PCT/CA2004/001968	International filing date (day/month/year) 15 November 2004 (15-11-2004)	(Earliest) Priority date (day/month/year) 13 November 2003 (13-11-2003)	
Applicant BIO-K PLUS INTERNATIONAL INC. ET AL			
This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau. This international search report consists of a total of <u>5</u> sheets. <div style="margin-left: 40px;"> <input checked="" type="checkbox"/> It is also accompanied by a copy of each prior art document cited in this report. </div> <div style="margin-left: 20px;"> 1. Basis of the report <div style="margin-left: 20px;"> a. With regard to the language, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item. <div style="margin-left: 40px;"> <input type="checkbox"/> The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)). </div> </div> <div style="margin-left: 20px;"> b. <input type="checkbox"/> With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I. </div> </div> <div style="margin-left: 20px;"> 2. <input checked="" type="checkbox"/> Certain claims were found unsearchable (see Box No. II). </div> <div style="margin-left: 20px;"> 3. <input type="checkbox"/> Unity of invention is lacking (see Box No. III). </div> <div style="margin-left: 20px;"> 4. With regard to the title, <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> the text is approved as submitted by the applicant. <input type="checkbox"/> the text has been established by this Authority to read as follows : </div> </div> <div style="margin-left: 20px;"> 5. With regard to the abstract, <div style="margin-left: 20px;"> <input checked="" type="checkbox"/> the text is approved as submitted by the applicant. <input type="checkbox"/> the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority. </div> </div> <div style="margin-left: 20px;"> 6. With regard to the drawings, <div style="margin-left: 20px;"> a. the figure of the drawings to be published with the abstract is Figure No. __ <div style="margin-left: 40px;"> <input type="checkbox"/> as suggested by the applicant. <input type="checkbox"/> as selected by this authority, because the applicant failed to suggest a figure. <input type="checkbox"/> as selected by this Authority, because this figure better characterizes the invention. </div> </div> <div style="margin-left: 20px;"> b. <input checked="" type="checkbox"/> none of the figures is to be published with the abstract. </div> </div>			

Box No. II	Observations where certain claims were found unsearchable (Continuation of item 2 of the first sheet)
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This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons :

7. ☒ Claim Nos. : 19 to 23
because they relate to subject matter not required to be searched by this Authority, namely :
Although claims 19 to 23 are directed to methods of treatment of the human /animal body which this Authority is not obliged to search under Rule 39.1 (iv) of the PCT, the search has been carried out based on the alleged effects of the compositions or supernatants referred to therein.
8. ☐ Claim Nos. :
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically :
9. ☐ Claims Nos. :
because they are dependant claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III	Observations where unity of invention is lacking (Continuation of item 3 of first sheet)
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This International Searching Authority found multiple inventions in this international application, as follows :

10. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
11. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
12. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claim Nos. :
13. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claim Nos. :

Remark on Protest

- | | |
|--------------------------|---|
| <input type="checkbox"/> | The additional search fees were accompanied by the applicant's protest. |
| <input type="checkbox"/> | No protest accompanied the payment of additional search fees. |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/CA2004/001968

A. CLASSIFICATION OF SUBJECT MATTER

According to International Patent Classification (IPC⁷): A61K 35/74; A61K 38/00; A61K 35/00

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC⁷: A61K 35/74; A61K 38/00; A61K 35/00

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database(s) consulted during the international search (name of database(s) and, where practicable, search terms used)
Delphion; Medline
Search terms: Lactic acid bacteria, probiotic; lactobacillus, angiogenesis, cancer, arthritis, psoriasis.

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No(s).
P, Y	BAHARAV, E. et al. Lactobacillus GG bacteria ameliorate arthritis in Lewis rats. J NUTR. August 2004, Vol.134, No.8, pages 1964-1969, see whole document.	1, 14-17, 19-21, 23
P, Y	WO 2004/069178 A2 (VERSALOVIC, J. et al.) 19 August 2004 pages 4-7, 31-41	5-13, 19-31
X Y	WO 03/045405 A2 (LUQUET, F-M. et al.) 5 June 2003, see whole document	1-8, 14-26, 31 27-30
X Y	ARIMOCHI, H. et al. Effect of Intestinal Bacteria on Formation of Azoxymethane-Induced Aberrant Crypt Foci in the Rat Colon. BIOCHEM BIOPHYS RES COMMUN. 1997, Vol.238, No.3, pages 753-757, see whole document.	1, 5-10, 12-15, 17-19, 21-24, 26 11, 16, 20

☒ Further documents are listed in the continuation of Box C.

☒ See patent family annex.

* Special categories of cited documents :
"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier application or patent but published on or after the international filing date
"L" document which may throw doubt on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
"&" document member of the same patent family

Date of the actual completion of the international search
04 February 2005 (04-02-2005)

Date of mailing of the international search report
14 March 2005 (14-03-2005)

Name and mailing address of the ISA/CA
Canadian Intellectual Property Office
Place du Portage I, C114 - 1st Floor, Box PCT
50 Victoria Street
Gatineau, Quebec K1A 0C9

Authorized officer
Cynthia Brewer (819) 997-4921

Facsimile No: 001(819)953-2476

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International application No.
PCT/CA2004/001968

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

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X Y	KATO, I. et al. Suppressive effects of the oral administration of <i>Lactobacillus casei</i> on type II collagen-induced arthritis in DBA/1 mice. LIFE SCI. 1998, Vol.63, No.8, pages 635-644, see whole document.	1, 14, 15, 17, 19, 21, 23 16, 20
Y	MITAL, B.K. et al. Anticarcinogenic, Hypocholesterolemic, and Antagonistic Activities of <i>Lactobacillus acidophilus</i> . CRIT REV MICROBIOL. 1995, Vol. 21, No.3, pages 175-214, see whole document.	1-23
Y	MATSUZAKI, T. Immunomodulation by treatment with <i>Lactobacillus casei</i> strain Shirota. INT J FOOD MICROBIOL. 1998, Vol.41, No.2, pages 133-140, see whole document.	1-23
Y	GRIFFIOEN, A.W. et al. Angiogenesis: Potentials for Pharmacologic Intervention in the Treatment of Cancer, Cardiovascular Diseases, and Chronic Inflammation. PHARMACOL REV. 2000, Vol.52, No.2, pages 237-268, see whole document.	1-23
A	HIRAYAMA, K. et al. The role of probiotic bacteria in cancer prevention. MICROBES AND INFECTION. 2000, Vol.2, No.6, pages 681-686, see whole document.	1-31

INTERNATIONAL SEARCH REPORT
Information on patent family members

International application No.
PCT/CA2004/001968

WO 2004/069178 A2	19-08-2004	US20040208863 A1	21-10-2004
WO 03/045405 A2	05-06-2003	EP1450832 A2	01-09-2004
		CA2467449 AA	05-06-2003
		CA2364249 AA	27-05-2003
		AU2349226 AA	10-06-2003

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 "O" document referring to an oral disclosure, use, exhibition or other means
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
 "Z" document member of the same patent family

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50 Victoria Street
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Authorized officer
Cynthia Brewer (819) 997-4921

Facsimile No: 001(819)953-2476

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Remark on Protest

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